
EWA Status Report

Presented at the Quinn/Spear
meeting

July 19, 1999



Outline

- Review Of Games
- Evaluation of Games
 - Fish: Delta Smelt, Salmon, Splittail
 - Water Supply
 - Water Quality
- Issues for Technical Teams
- Implementation Issues
- Next Games



Games Completed

Game	Stage 1	Account	Baseline
1	Middle	G/G	Accord + Upstream and in-Delta AFRP
2	End	G/G	Accord + Upstream and in-Delta AFRP
3	End	Credit	Accord + Upstream and in-Delta AFRP
4	Start	G/G	Accord + Upstream and in-Delta AFRP
5	Start	G/G	Accord + Upstream No in-Delta AFRP



Proposed Games

Game	Stage 1	Years	Baseline
6	End	91-95	Accord + Upstream AFRP
7	Start	99-00	Water Users Game Accord + Upstream and in-Delta AFRP
8	End	81-95	Accord + Upstream and in-Delta AFRP
9...?	Start	81-95	Negotiations



Game 6

- 10,300 cfs Banks + JPOD
- GW: Semitropic, Gravelly Ford, Kern, 200 TAF each
- In-Delta Storage: Webb, Bacon-Victoria-Woodward with connection
- Unlimited water purchase
- Vary In-Delta AFRP
- Vary E/I
- Vary X2 when outflow below 20,000 cfs
- EWA runs projects: Biological decisions made by consensus of agencies/stakeholders: final decision by agencies



Early Stage 1 Assets Games 4 & 5

- South Delta Program - 8,500 cfs, Temporary barriers in.
- JPOD
- E/I, In-Delta AFRP Variances
- Ground Water (400 TAF; 40 TAF/Mo. in-out)
- Shasta Enlargement (50 TAF)
- Water Purchase (NOD, SOD, spot market) -- \$40m/yr.
- San Luis Storage Borrowing
- Unused System Capacities
- Demand Shifting (100 TAF/yr)



Late Stage 1 Assets

Game 2

- Expanded Banks - 10,300 cfs
- JPOD
- E/I, In-Delta AFRR Variances
- Ground Water (600 TAF; 60 TAF/Mo. in-out)
- Shasta Enlargement (50 TAF)
- Webb Tract Storage (120 TAF, 2,000 cfs. in-out)
- Bacon+ Storage/Connected (200 TAF, 4,000 cfs in; 2,000 cfs. out)
- ET Reductions on Delta Islands (60TAF / year)
- Water Purchase (NOD, SOD, spot market) -- \$30m/Lr.
- San Luis Storage Borrowing
- Unused System Capacities
- Demand Shifting (100 TAF/yr)



Essential EWA Assets

- A monetary account for water purchases
 - \$40M to \$50M at start of Stage 1 - \$20M to \$30M at end of Stage 1
- Ability to purchase and transfer water at a reasonable cost and at needed times
 - Up to 100 TAF Sacramento River System
 - Up to 150 TAF San Joaquin River System
 - Up to 250 TAF in Export Areas
- Ability to Vary Standards
- Adequately screened project water diversion intakes in south Delta
- JPOD with no State and federal sublimits



Essential EWA Assets (con't)

- Access to storage upstream and south of Delta and Delta Islands
 - Utilize available storage in existing reservoirs; **San Luis is key** with other SWP and CVP storage.
 - Late in Stage 1 need storage closer to export pumps for flexibility. Wedd Tract and Bacon/others Islands with a direct connection to bacon and CCF
- Increased permitted export capacity
 - Increased Banks 8,500 cfs pumping window in early Stage 1.
 - Expand Banks permitted capacity to 10,300 cfs by end of Stage 1
- Access groundwater
 - At least 600 TAF in SOD area.
 - Facilities to increase recharge and extraction rates



General Conclusions

- For a given amount of water, EWA could be more effective in reducing fish entrainment than prescriptive standards
- For a given level of protection, EWA could allow more exports than prescriptive standards
- Effectiveness of EWA would be greater with larger and greater diversity of assets.
- Various assets provided greater values than others.



General Conclusions (con't)

- Uncertainties in application of EWA will require experiments in Stage 1.
- Burden of fish population recovery should not be solely that of EWA.
- EWA provides synergies of benefits between upstream and Delta Actions.
- EWA could provide incidental benefits to water supply and water quality.



Issues

- While the EWA generally improved upon the water supply benefits over the baselines, the EWA did not make up the deficits.
- EWA assets would have to increase proportional to future demand, if the level of environmental protection is to be maintained.
- EWA was not used to improve water quality.



Issues (con't)

- Disagreement on existing and future environmental protections needed in the Delta and EWA priorities of use.
- Rapid and substantial EWA debts occurred in San Luis, ability to payback in doubt.

